

**Conclusions:** Prasugrel was associated with an increased risk of total bleeding; however it was not significantly associated with mayor and life threatening bleeding events. Ticagrelor was not significantly associated with any kind of bleeding compared to clopidogrel.

#### TCT-505

##### Optimal Dual Antiplatelet Therapy Duration after Lower Extremity Peripheral Artery Intervention

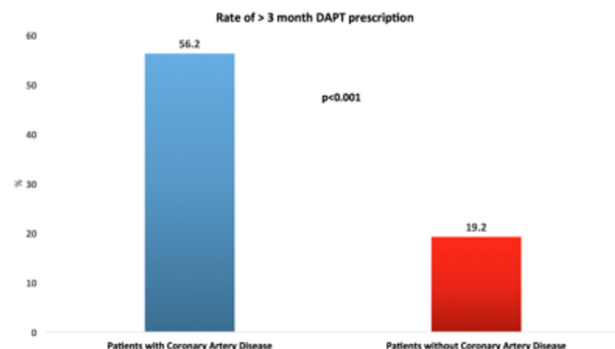
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**Background:** Although dual antiplatelet therapy (DAPT) is commonly prescribed after lower extremity peripheral artery interventions, its optimal duration has not yet been established.

**Methods:** We analyzed 494 limb interventions from 367 patients between July 2005 and May 2014 enrolled in the multicenter Excellence in Peripheral Artery Disease (XLPAD) registry (NCT01904851) for the primary endpoint (death, myocardial infarction, coronary or limb revascularization, unplanned amputation and surgical revascularization) over a 12 month period based on the duration of prescribed or received DAPT.

**Results:** DAPT was prescribed following 92.3% procedures, with 228 (50%) each in  $\leq 3$  months and  $>3$  months duration. After adjusting for ankle brachial index, Rutherford category, and cardiovascular risk factors, primary endpoint free survival was similar between prescription groups (hazard ratio [HR]: 0.99, 95% confidence interval [CI]: 0.55-1.78;  $p=0.998$ ). 50.9% actually received  $\leq 3$  months DAPT while 49.1% received  $>3$  months, with no differences in primary endpoint free survival (HR: 1.16, 95% CI: 0.69-1.95;  $p=0.567$ ). Importantly,  $>3$  DAPT duration was more often prescribed to patients with prior coronary artery disease ( $p<0.001$ , Figure 1).



**Conclusions:** Experience across operators suggests equipoise in the selection of DAPT duration after peripheral artery intervention, with longer prescription duration selected for patients with preexisting coronary artery disease.

#### TCT-506

##### Comparison Of Ticagrelor and Prasugrel In STEMI-Patients: 30-Day Mortality After Primary PCI

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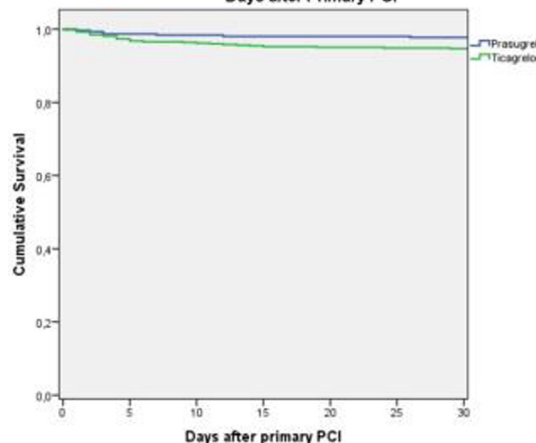
**Background:** Recent trials indicate that both Ticagrelor and Prasugrel are superior to Clopidogrel in preventing cardiovascular events. However, as to date, no trials have been conducted comparing these drugs directly. We compared 30-day mortality in patients with STEMI receiving Ticagrelor or Prasugrel.

**Methods:** This retrospective study included 1069 consecutive STEMI-patients in the Catharina Hospital, Eindhoven area, The Netherlands. From April 2012 until April 2013, patients received Prasugrel loading (60mg) and maintenance dose (patients older than 75 years or weighing less than 60 kg were given Clopidogrel). From April 2013 onward, they received Ticagrelor loading (180mg) and maintenance dose. Death was defined as death from any cause within 30 days after primary PCI. Binary logistic regression was used for comparison of anti-platelet strategies.

**Results:** No patients were lost to follow-up. In the Ticagrelor group 28 out of 524 patients (5.3%) died within 30 days after PCI, as compared to 21 out of 545 patients (3.9%) in the 'Prasugrel/Clopidogrel' group (OR, 1.4;95% CI, 0.79 to 2.5;  $p=0.2$ ).

Analysis of the Ticagrelor group compared with Prasugrel alone ( $n=305$ ) by excluding Clopidogrel-treated patients) showed a 2.3% mortality in the Prasugrel group (OR, 2.4;95% CI, 1.04 to 5.57;  $p=0.04$ ). However, after adjusting for age, no significant difference was found between Ticagrelor and Prasugrel treated patients (OR, 1.5; 95% CI 0.61 to 3.6;  $p=0.4$ ).

##### Cumulative Survival of Patients Treated With Prasugrel or Ticagrelor Within 30 Days after Primary PCI



**Conclusions:** We found no significant difference in 30-day mortality in STEMI-patients treated with Ticagrelor or Prasugrel in a large, retrospective, single-centre study.

## Renal and Mesenteric Intervention

Washington Convention Center, Lower Level, Hall A

Saturday, September 13, 2014, 5:00 PM–7:00 PM

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#### TCT-507

##### RENAL ARTERY ANEURYSMS. FIRST HUMAN TREATMENT WITH THE MULTILAYER FLOW MODULATOR

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**Background:** Renal Artery Aneurysms (RAAs) can be surgically treated but due to high risk, endovascular procedures have been proposed (coils, graft...). All these techniques have some drawbacks, potential complications and contraindications. We propose a new technique: the Multilayer Flow Modulator (MFM\*), a self expandable. **Methods:** This MFM\* is a 3D braided tube made of several interconnected layers without any covering. Our earliest tests, in vitro (theoretical simulation computerized Fluid dynamics, Molecular Modelization) & in vivo, demonstrate that this MFM\* reduces the velocity in the aneurysmal sac up to 90% by modifying the hemodynamic conditions.. A saccular aneurysm (A.) without collateral branch will thrombose quickly. If a collateral branch is present the flow is directed towards this branch leading to shrinkage of the aneurysm. In fusiform A. the flow is laminated, the vortices eliminated, eliminating the risk of rupture. Animal experiments show excellent results. Moreover, as demonstrated in animal and human studies this MFM preserves the collateral branches and increases the flow in them, allowing the possibility to cover any artery without compromising the flow.

**Results:** 8 RAAs (right:5, left: 3) in 8 pts (male: 3) mean age 58 y. treated with MFM\* 6 pts had atheromatous disease, 2 a fibromuscular dysplasia. One pt had a solitary kidney. All these pts had hypertension. 10 MFM\*( $\phi$ : 5 to 6 mm, length 30 to 60 mm) loaded in a 6 F sheath implanted by femoral approach through 8 F guiding catheter. These stents covered major renal branches without compromising the flow. Technical success: 100%. No complications. Immediately: important reduction of the velocities inside the aneurysmal sac. 6 to 36 month follow up will be presented. All aneurysms thrombosed with diameter reduction in some pts. The thrombosis could take several weeks depending on the importance of collateral branches. All the side branches remain patent.